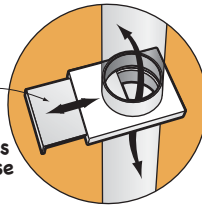


**ALTERNATIVE RAFTER ROOF DESIGN**

spray foam applied to underside of sheathing, between rafters and on gable end wall then covered with wallboard

valve plate slides to open and close blast gate



**BLAST GATE DETAILS**

1/2" dia. (13mm) L-shaped anchor bolts set into soft concrete in block wall

roof vent with blast gate

long screws secure roof panels to walls

metal roofing

plywood SIPs

metal ridge cap

8 1/4" (209mm) plywood-sheathed SIPs roof

aluminum fascia

2x8 (200x50 mm) lumber in recessed edges of roof and gable SIPs

2x10 (50x250 mm) top plate bolted to top of block wall

cedar shingles

outdoor tap

door frame

insulated metal door or door made of SIP and weatherproof exterior treatment

geogrid to stabilize backfilled soil

earth or crushed stone floor

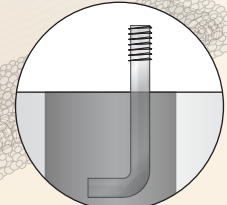
angled wood strip seals and supports eaves

self-sticking, waterproof membrane

earth anchor

galvanized brace cable

8x8 timber retaining wall



**L-BOLT DETAILS**

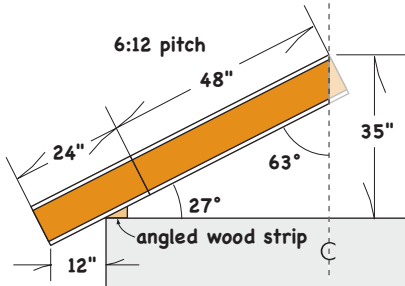
concrete footing (actual footing depth located below frost line)

perforated plastic drainage tile

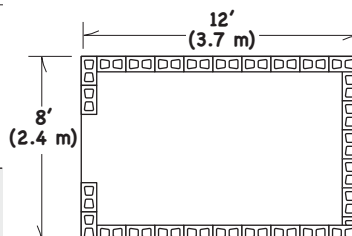
crushed stone

block cavities filled with concrete and 1/2 inch (12 mm) reinforcing rod

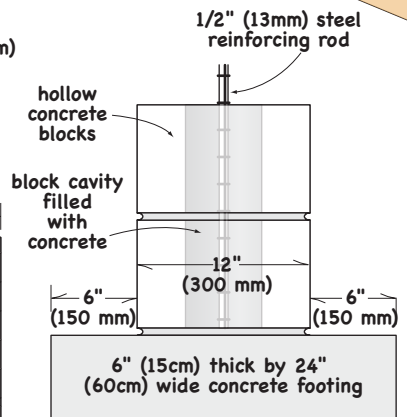
**FOOTING FORM DETAIL**



**ROOF SLOPE DETAIL**



**TOP VIEW**



**FOOTING/WALL DETAIL**